

**REMARKS**

Claims 1-21 are pending in the application, of which claims 1 and 6 are independent. Claim 2 has been amended to fix a typographical error. The following comments address all stated grounds for rejection, and the Applicant respectfully submits that the presently pending claims, as identified above, are now in a condition for allowance.

**Claims 1-21 Being Rejected Under 35 U.S.C. §103**

Claims 1-21 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,430,150 ("Azuma"). Applicant respectfully traverses these rejections.

**Claim 1**

Azuma fails to teach or suggest the method of claim 1. Azuma is directed to a different technique than those of the present invention and as such Azuma fails to teach or suggest the methodology of claim 1. Indeed, the Examiner fails to identify any section of Azuma that teaches or suggest what The Examiner asserts is being taught.

Regarding the step of determining whether *a second connection* can be established between the first node and a third node located after the second node along the path if the first connection cannot be established, the Examiner asserts that Azuma teaches the step of determining whether a connection connecting nodes 5, 3, 2 and 1 can be established between node 5 and node 1, if a connection failure occurs between nodes 5 and 6. There is no such teaching or discussion whatsoever of connecting nodes 5, 3, 2, and 1 in Azuma. The Examiner has cited Fig. 5A and col. 7, lines 20-32 in support of this assertion. Applicants have reviewed the Azuma and can find no such teaching in Fig. 5A and col. 7, line 20-32. Review of Fig 5A in view of the description set forth in col. 7, lines 20-45 of Azuma indicates that Fig. 5A depicts two different methodologies: Line restoration and path restoration.

In discussing line restoration, Azuma teaches that if a failure occurs between nodes 5 and 6, a path connecting nodes 6, 2, 3, and 5 is set bypassing the failed link connecting nodes 5 and 6. It is also pointed out that line restoration cannot deal with node failure. The point of line restoration is to avoid the failed link, not the nodes of the failed link. As such, using the line

restoration technique, the set path would be connecting nodes 6, 2, 3, and 5 which avoids the failed link between nodes 5 and 6. It does not skip node 6 and proceed to node 1 as suggested by the Examiner.

In discussing path restoration, Azuma teaches, for the same failure between nodes 5 and 6, an alternate path connecting nodes 1, 2, 3, and 4 is set in place. It is also indicated that path restoration can handle node failures. This is because it avoids the nodes that cannot establish a connection (i.e. nodes 5 and 6) thus the alternate path connecting nodes 1, 2, 3, and 4 is set. Node 5 would not be included in the path because it is one of nodes that could have failed.

There is no teaching of connecting nodes 5, 3, 2, and 1 in the passage indicated by the Examiner nor anywhere else in Azuma. The argument made by the Examiner that the shortest, cheapest route, would be 5, 3, 2, 1 is a conclusion based upon impermissible hindsight reasoning and is not supported by any evidence of record. It is never appropriate to rely solely on "common knowledge" in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based. *In re Zurko*, 258 F.3d 1379, 1385, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). The "basic knowledge" and "common sense" that are not based on any evidence in the record lacks substantial evidence support. *Id.* at 1385, 59 USPQ2d at 1697. See also *In re Lee*, 277 F.3d 1338, 1344-45, 61 USPQ2d 1430, 1434-35 (Fed. Cir. 2002). If the Examiner insists on maintaining this assertion Applicants request the Examiner to specifically indicate where such a teaching is provided.

Regarding the step of determining whether a *third connection* can be established between a fourth node located before the first node along the path and the second node, if the first connection and the second connection cannot be established, The Examiner asserts that Azuma teaches the step of determining whether a connection connecting nodes 4, 3, 2 and 6 can be established between nodes 4 and 6, if the first connection and the second connection cannot be established. There is no such teaching or discussion whatsoever of connecting nodes 4, 3, 2, and 6 in Azuma. Indeed, such a connection is infeasible with network and techniques depicted in Fig. 5A and related description.

Azuma teaches a connection connecting nodes 1, 6, 2, 3, 5 and 4 or a connection connecting nodes 1, 2, 3 and 4 can be established according to the line restoration or path restoration. These are the only two techniques disclosed in Fig 5A and the related text. Thus is if a first connection (between nodes 5 and 6) cannot be established a second connection would be either the described line restoration (nodes 1, 6, 2, 3, 5, and 4) or path restoration (nodes 1, 2, 3, 4). If either of these connections could not be established (necessitating determining if a third connection could be established) the third connection proposed by the Examiner (connecting nodes 4, 3, 2 and 6) would not be an option because it uses the same links and nodes as the first and second connections that could not be established.

Azuma fails to teach or suggest the step of determining whether *a fourth connection* can be established between the third node and the fourth node, if the first connection, the second connection and the third connection cannot be established for the same reasons there is no teaching of a third connection. It is not possible to extrapolate out a forth connection, let alone a third connection, with the techniques taught in Azuma.

Therefore, in view of the above amendment, Applicant respectfully requests the reconsideration and withdrawal of the rejection to claim 1 under 35 USC § 103(a).

### Claim 2

Claim 2 depends from independent claims 1 respectively and as such incorporates each and every element of claim 1. As discussed above, Azuma fails to teach or suggest each and every element of claim 1. Therefore Azuma fails to teach or suggest each and every element of claim 2.

Therefore, in view of the above arguments, Applicant respectfully requests the reconsideration and withdrawal of the rejection to claim 2 under 35 USC § 103(a).

Claim 6

Azuma fails to teach or suggest each and every element of independent claim 6 for the same reasons as for claim 1.

Regarding the step of determining whether *a second connection* can be established if the first connection cannot be established, the Examiner asserts that Azuma teaches the step of determining whether a connection connecting nodes 5, 3, 2 and 1 can be established between node 5 and node 1, if a connection failure occurs between nodes 5 and 6. There is no such teaching or discussion whatsoever of connecting nodes 5, 3, 2, and 1 in Azuma. The Examiner has cited Fig. 5A and col. 7, lines 20-32 in support of this assertion. Applicants have reviewed the Azuma and can find no such teaching in Fig. 5A and col. 7, line 20-32. Review of Fig 5A in view of the description set forth in col. 7, lines 20-45 of Azuma indicates that Fig. 5A depicts two different methodologies: Line restoration and path restoration.

In discussing line restoration, Azuma teaches that if a failure occurs between nodes 5 and 6, a path connecting nodes 6, 2, 3, and 5 is set bypassing the failed link connecting nodes 5 and 6. It is also pointed out that line restoration cannot deal with node failure. The point of line restoration is to avoid the failed link, not the nodes of the failed link. As such, using the line restoration technique, the set path would be connecting nodes 6, 2, 3, and 5 which avoids the failed link between nodes 5 and 6. It does not skip node 6 and proceed to node 1 as suggested by the Examiner.

In discussing path restoration, Azuma teaches, for the same failure between nodes 5 and 6, an alternate path connecting nodes 1, 2, 3, and 4 is set in place. It is also indicated that path restoration can handle node failures. This is because it avoids the nodes that cannot establish a connection (i.e. nodes 5 and 6) thus the alternate path connecting nodes 1, 2, 3, and 4 is set. Node 5 would not be included in the path because it is one of nodes that could have failed.

There is no teaching of connecting nodes 5, 3, 2, and 1 in the passage indicated by the Examiner nor anywhere else in Azuma. The argument made by the Examiner that the shortest, cheapest route, would be 5, 3, 2, 1 is a conclusion based upon impermissible hindsight reasoning

and is not supported by any evidence of record. It is never appropriate to rely solely on "common knowledge" in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based. *In re Zurko*, 258 F.3d 1379, 1385, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). The "basic knowledge" and "common sense" that are not based on any evidence in the record lacks substantial evidence support. *Id.* at 1385, 59 USPQ2d at 1697. See also *In re Lee*, 277 F.3d 1338, 1344-45, 61 USPQ2d 1430, 1434-35 (Fed. Cir. 2002). If the Examiner insists on maintaining this assertion Applicants request the Examiner to specifically indicate where such a teaching is provided.

Regarding the step of determining whether *a third connection* can be established if the first connection and the second connection cannot be established, The Examiner asserts that Azuma teaches the step of determining whether a connection connecting nodes 4, 3, 2 and 6 can be established between nodes 4 and 6, if the first connection and the second connection cannot be established. There is no such teaching or discussion whatsoever of connecting nodes 4, 3, 2, and 6 in Azuma. Indeed, such a connection is infeasible with network and techniques depicted in Fig. 5A and related description.

Azuma teaches a connection connecting nodes 1, 6, 2, 3, 5 and 4 or a connection connecting nodes 1, 2, 3 and 4 can be established according to the line restoration or path restoration. These are the only two techniques disclosed in Fig 5A and the related text. Thus is if a first connection (between nodes 5 and 6) cannot be established a second connection would be either the described line restoration (nodes 1, 6, 2, 3, 5, and 4) or path restoration (nodes 1, 2, 3, 4). If either of these connections could not be established (necessitating determining if a third connection could be established) the third connection proposed by the Examiner (connecting nodes 4, 3, 2 and 6) would not be an option because it uses the same links and nodes as the first and second connections that could not be established.

Azuma fails to teach or suggest the step of determining whether *a fourth connection* can be established if the first connection, the second connection and the third connection cannot be established for the same reasons there is no teaching of a third connection. It is not possible to extrapolate out a forth connection, let alone a third connection, with the techniques taught in Azuma.

Therefore, in view of the above amendment, Applicant respectfully requests the reconsideration and withdrawal of the rejection to claim 6 under 35 USC § 103(a).

Claims 3, 5, 7, 9 and 11

Claims 3, 5, 7, 9 and 11 depend from independent claims 1 and 6 and as such incorporates each and every element of there respective independent claim. As discussed above, Azuma fails to teach or suggest each and every element of claims 1 and 6. Therefore Azuma fails to teach or suggest each and every element of claims 3, 5, 7, 9 and 11.

Therefore, in view of the above arguments, Applicant respectfully requests the reconsideration and withdrawal of the rejection to claims 3, 5, 7, 9 and 11 under 35 USC § 103(a).

Claims 4 and 10

Claims 4 and 10 depend from independent claims 1 and 6 respectively and as such incorporates each and every element of claim 1 and 6, respectively. As discussed above, Azuma fails to teach or suggest each and every element of claims 1 and 6. Therefore Azuma fails to teach or suggest each and every element of claims 4 and 10.

Therefore, in view of the above arguments, Applicant respectfully requests the reconsideration and withdrawal of the rejection to claims 4 and 10 under 35 USC § 103(a).

Claim 8

Claim 8 depends indirectly from independent claim 6 and as such incorporates each and every element of claim 6. As discussed above, Azuma fails to teach or suggest each and every

element of claim 6. Therefore Azuma fails to teach or suggest each and every element of claim 8.

Therefore, in view of the above arguments, Applicant respectfully requests the reconsideration and withdrawal of the rejection to claim 8 under 35 USC § 103(a).

#### Claims 12-15

Claims 12-15 incorporate the each and every element of claim 1. As discussed above, Azuma fails to teach or suggest each and every element of claim 1. Therefore Azuma fails to teach or suggest each and every element of claims 12-15.

Therefore, in view of the above arguments, Applicant respectfully requests the reconsideration and withdrawal of the rejection to claims 12-15 under 35 USC § 103(a).

#### Claims 17-20

Claims 17-20 incorporate each and every element of claim 6. As discussed above, Azuma fails to teach or suggest each and every element of claim 6. Therefore Azuma fails to teach or suggest each and every element of claims 17-20.

Therefore, in view of the above arguments, Applicant respectfully requests the reconsideration and withdrawal of the rejection to claims 17-20 under 35 USC § 103(a).

#### Claims 16 and 21

Claims 16 and 21 depends from claims 14 and 19 respectively, and as such incorporates each and every element of claim 14 and 19 respectively. Claim 14 incorporates each and every element of claim 1 and claim 19 incorporates each and every element of claim 6. As discussed

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above, Azuma fails to teach or suggest each and every element of claims 1 and 6. Therefore Azuma fails to teach or suggest each and every element of claims 16 and 21.

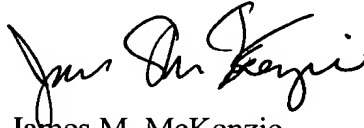
Therefore, in view of the above arguments, Applicant respectfully requests the reconsideration and withdrawal of the rejection to claims 16 and 21 under 35 USC § 103(a).



Conclusion

In view of the remarks set forth above, Applicant contends that Claims 1-21 are presently pending in this application, are patentable an in condition for allowance. If the Examiner deems there are any remaining issues, we invite the Examiner to call the undersigned at (617) 227-7400.

Respectfully submitted,  
LAHIVE & COCKFIELD, LLP

A handwritten signature in black ink, appearing to read "James M. McKenzie".

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